MULTIMEDIA 93

SIGGRAPH 93
20th International Conference
on Computer Graphics and
Interactive Techniques

Anaheim Convention Center
1 to 6 August 1993

COURSE NOTES   27

Designing Multimedia Environments for Children

ORGANIZER/LECTURERS
Allison Druin
Scitex America
Cynthia Solomon
Wheeling Jesuit College

Abstract

Through lectures and a hands-on design session, participants will explore the special challenges and global implications of designing multimedia environments for children   Participants will begin with an introduction to past, present, and emerging multimedia environments for children   This will be followed by a hands-on design session where elementary school children will join participants in designing and prototyping a new multimedia environment. Participants will leave this course with a historical perspective on what has been done in this field, as well as actual design experience

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Instructor Biographies

Allison Druin

Ms Druin is recognized for her work in developing multimedia environments for children She is best known for NOOBIE, a five foot computer/Muppet creature that replaces the mouse and keyboard This was developed while she was a Master's student at the MIT Media Lab with support from Apple Computer's Vivarium Research Group For the past 3 years she has taught elementary school children part-time, as well as consulted for various educational institutions developing multimedia environments Currently she is a Visiting Research Scientist at New York University's Courant Institute of Mathematical Sciences, developing experimental room-sized multimedia environments

Dr Cynthia Solomon

Dr Solomon is known for her work in developing Logo, a language and computer culture for children During the 1960s and 1970s she developed Logo environments for children integrating graphics, animation, and sound She was formerly the director of Atari Cambridge Research in Cambridge, MA, where the research included examining such technologies as force-feedback, touch sensitivity, and gestural recognition Today she is Director of Educational Technologies for the NASA Classroom of the Future at Wheeling Jesuit College in Wheeling, West Virginia The program's mandate is to develop multimedia material for K-12 students and teachers and enhance their mathematics and science knowledge especially with regard space technologies, through special projects and training

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Schedule of Course

Speaker	Topic	Duration
Druin / Solomon	Welcome/ Introduction	15 min

Solomon	**Part 1 Models of Computers in Education**
	Computer as Interactive Textbook
	  -Patrick Suppes Drill-and-Practice & Stimulus Response
	  -Robert Davis Plato Madison Project & Socratic Dialog
	Computer as Expressive Medium
	  -Seymour Papert. Logo & Constructivism
		45 min

Druin
 	
Solomon
 	
Druin
	Part 2 Extending Computers as Expressive Medium
	Microworlds
	  -Today's Trendy Software
	  -Videodisk Tools
	Telecommunications and Information Environments
	  -A Multimedia Science Environment
	  -Telecommunications in Science Classrooms
	Other Enabling Environments
	  -Physical Multimedia Environments
		1 hour 45 min

Druin	**Part 3 Hands-On Design Session**
	Introduction
	  -Project Description
	  -Design Considerations
	  -Project Logistics
		30 min

	Lunch	
Druin / Solomon	Organize Work Groups Distribute Materials	30 min
	Design Session (1)	1 hour 15 min
	Design Session (2)	1 hour 15 min
	Presentation of Multimedia Environments Discussion	45 min